Amendments to the Specification

Please replace paragraph [0045] with the following amended paragraph:

[0045]   The preferred implementation for input member acceleration Ni_dot is
to provide a desired rate of change of transmission input speed, Ni_dot_des, for
Ni_dot. Given a desired transmission input speed, Ni_des, a transmission input
speed trajectory is determined, called an input speed profile, Ni_prof. Desired input
speed is provided by the system controller, for example in accordance with a
desired operating point of the engine to meet various efficiency and emission
objectives. A preferred method of determining input speed is disclosed in commonly
assigned and co-pending United States Serial Numbers 10/686,508 ~~10/~~ ‾‾‾‾‾‾
~~(Attorney Docket Number GP-304193)~~ and 10/686,034 ~~10/~~ ‾‾‾‾‾‾ ~~(Attorney
Docket Number GP-304194)~~ which are incorporated herein by reference. The
method by which Ni_prof is determined is shown in Figure 5.   The present value of
the trajectory, Ni_prof is subtracted from the desired speed, Ni_des to obtain an
input speed profile error, Ni_prof_err. This error is then used in a lookup table to
determine the allowable rate of change for the input speed profile,
Ni_prof_rate_limit. The values used within the lookup table are empirically
determined based upon objective and subjective criteria such as system
responsiveness capability, noise and vibration due to changes in engine operating
speed, vehicle stability, and effects on engine operating characteristics such as fuel
economy and emissions that may be related to the change rate of engine operation.
In general, it is desirable to allow a higher rate of change, Ni_prof_rate_limit, for a
larger error, Ni_prof_err. Then the present value of the profile, Ni_prof, the desired
final value of the profile, Ni_des, and the allowable rate of change,
Ni_prof_rate_limit, are inputs to a rate limiter. This rate limiter allows the value of
the profile, Ni_prof, to be modified in the direction of the final value, Ni_des, at a
rate that is no faster than the rate limit, Ni_prof_rate_limit, until the profile, Ni_prof,
becomes equal to the desired value, Ni_des. The derivative with respect to time of

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Ni_prof is then taken to determine the desired rate of change of transmission input speed, Ni_dot_des. Through Ni_dot, Ta and Tb are calculated in such a manner as to cause transmission input speed to change at a desired rate, Ni_dot_des.

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